THE CONTENTS OF THIS
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TRACK 1 DECISION DOCUMENTATION PACKAGES OPERABLE UNIT 3-01

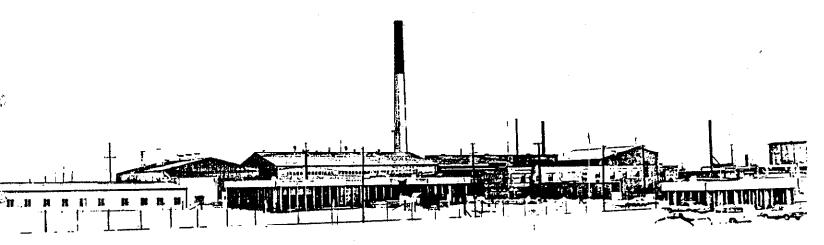
ORIGINAL SIGNATURES INCLUDED

CPP-49 PCB Transformer Yard (CPP-705)

CPP-50 PCB TRANSFORMER YARD (CPP-731)

CPP-51 PCB Staging Area West of CPP-660

CPP-61 PCB SPILL IN CPP-718 TRANSFORMER YARD





Idaho Falls, Idaho 83403

Prepared For The

DEPARTMENT OF ENERGY

FIELD OFFICE, IDAHO UNDER CONTRACT DE-AC07-84ID12435

TRACK 1 DECISION DOCUMENTATION PACKAGES OPERABLE UNIT 3-01

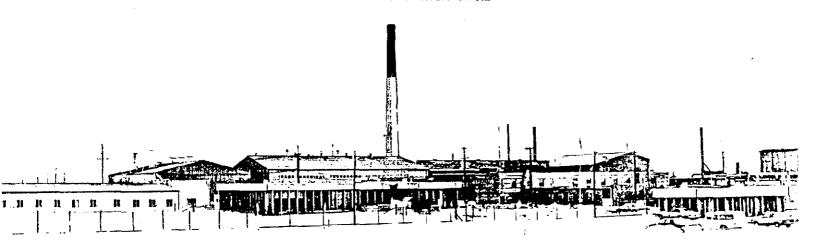
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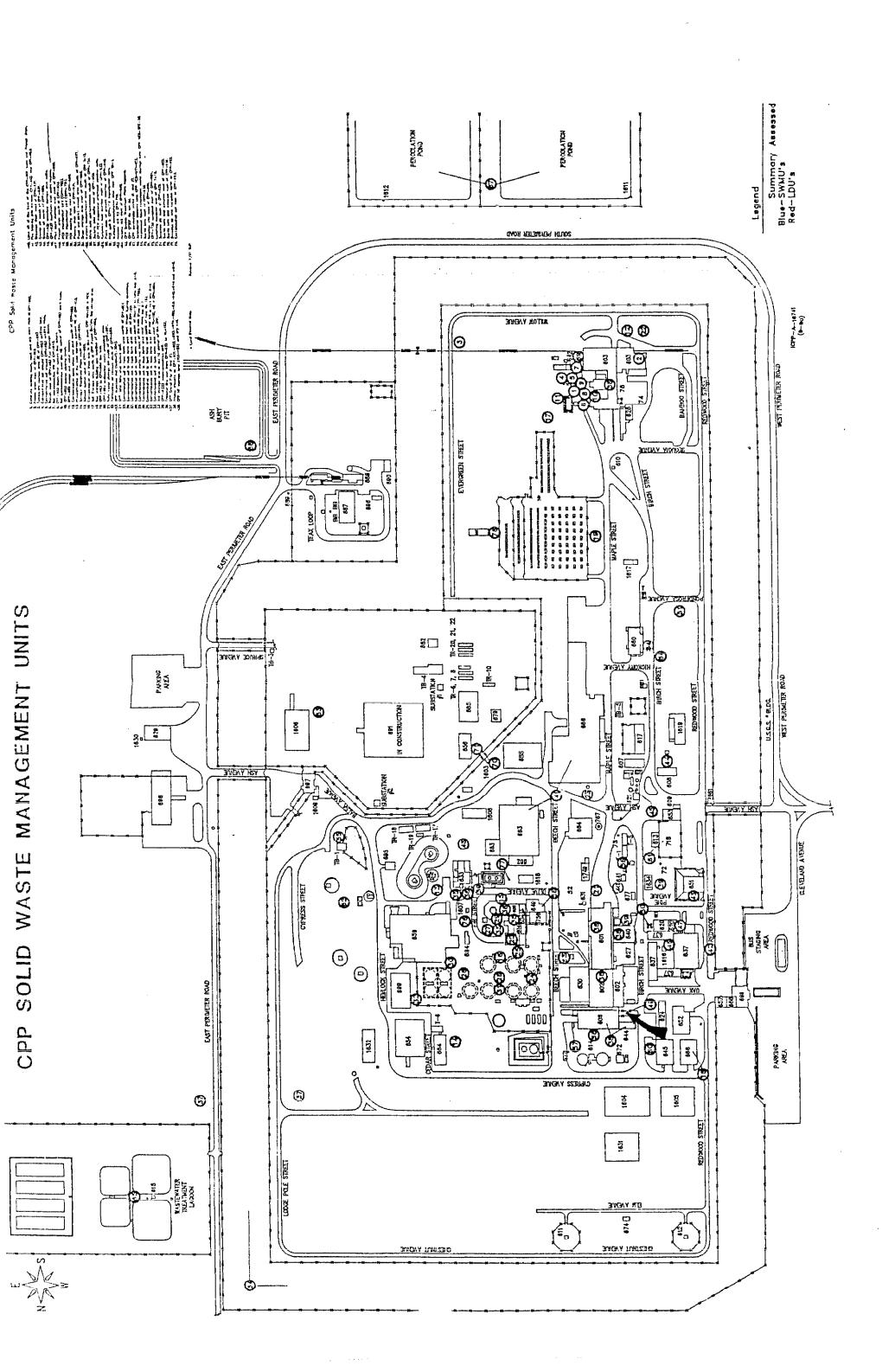
Track 1 Decision Documentation Package

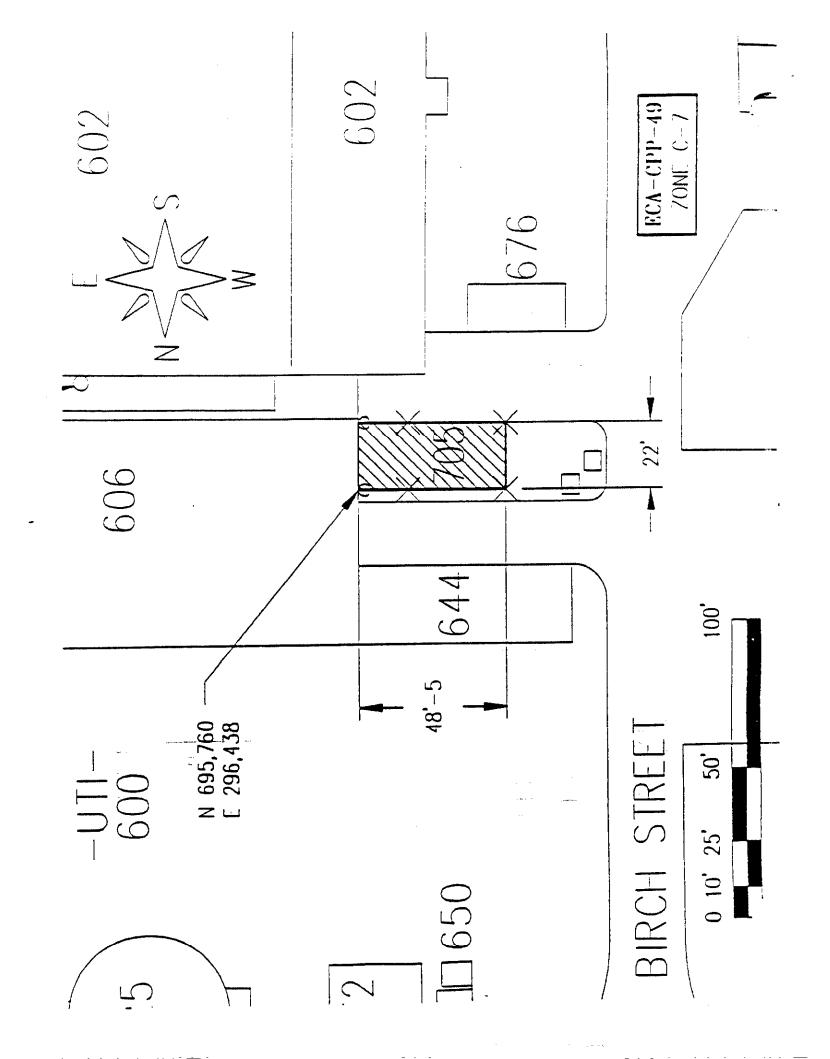
Waste Area Group 3 Operable Unit 3-01

Site CPP-49

PCB Transformer Yard (CPP-705)







page l

DECISION DOCUMENTATION PACKAGE COVER SHEET

PREPARED IN ACCORDANCE WITH

TRACK 1 SITES:
GUIDANCE FOR ASSESSING
LOW PROBABILITY HAZARD SITES
AT INEL

SITE DESCRIPTION: PCB TRANSFORMER YARD (CPP-705)

SITE ID: CPP-49

OPERABLE UNIT: 3-01

WASTE AREA GROUP: 3

I. SUMMARY - Physical description of the site: CPP-49 is the site of a transformer yard that contained three PCB containing transformers. The site is 30 ft by 60 ft in area. The transformers contained up to 330 ppm PCBs in transformer oil. Evidence of oil staining on concrete pads led to soil and concrete sampling during July, 1988. The soil sample results showed PCB concentrations of less than or equal to 1 ppm. There is a correction in the report that indicates the reported detection limit in the data sheets of 1 ppm is actually 0.1 ppm for all samples showing non-detectable PCB concentrations (It is also important to note that the 0.1 ppm PCB detection limit was also provided for composite samples and any single sample within the composite may have contained PCBs at above 0.1 ppm).

One concrete pad sample contained 29.1 ppm PCBs. Subsequent sealing activities, having been completed on the transformer pad, have resulted in encapsulation of the pad within a larger resultant concrete pad structure.

- II. SUMMARY QUALITATIVE ASSESSMENT OF RISK: The qualitative risk of the site is predicted by the risk assessment to be medium based on risk to groundwater. However, given the low concentrations of PCBs in the soil, the depth to groundwater and the very conservative assumptions used in the Track 1 risk assessment, there is little likelihood that groundwater will be impacted by PCBs. The reliability of the data is high.
- III. SUMMARY CONSEQUENCES OF ERROR: Limited risk due to low PCB concentrations of PCBs being left in the soil may result due to the no further action recommendation.
- IV. SUMMARY OTHER DECISION DRIVERS: The clean-up requirements provided for in the Toxic Substances Control Act (TSCA) 40 CFR 761.125 require remediation of PCBs in Industrial Areas to 25 ppm PCBs by weight in soil. The guidance provided in OWSER Directive 9335.4-01 "Guidance for Remedial Actions at Superfund Sites with PCB Contamination" also requires clean-up at restricted access industrial areas of 25 ppm PCBs by weight in soil. This clean-up requirement is based on health risk assessment criteria using occupational exposure of site workers by soil ingestion and dermal contact as the exposure scenario. Provided the established criteria in TSCA are considered an ARAR for the INEL, the existing soil concentrations can be left in place and no further action is recommended for this site. This ARAR, together with the very conservative assumptions used in performing the Track 1 risk assessment, provides for a reasonable foundation for recommending no further action at this site.

RECOMMENDED ACTION: No Further Action.

Approved By:

SIGNATURES # PAGES: DATE:

Prepared By: /Sie R farm DOE WAG Manager:

Independent Review:

DECISION STATEMENT (BY DOE RPM)

page 3

DATE RECD: 4/17/42

DISPOSITION:

Composting reduced the lines to a satisfactory level, No further action required at this time. ROD. will include this source

DATE: 4/17/82

PAGES (DECISION STATEMENT):

NAME: JORGY LYCO

SIGNATURE:

DATE RECD: H/9/92

DISPOSITION:

Although there may be indevidual samples which exhibited PCB concentrations above 25 ppn in soil due to compositing the initial concentration range of 2300 ppm and the composite sampling results support the conclusion of the July 88 westinghouse report. Therefore, no fulfar remedial investigative activities appear justified at the time. This source area determination will be incorporated in a fotor Record of Decision

DATE: 4/17/92 # PAGES (DECISION STATEMENT): 1

NAME: Wayne Pierre SIGNATURE: Wayne French

DECISION STATEMENT (BY STATE RPM)

CDD-36 CPP-199 5

DATE RECD: 4/9/92

DISPOSITION:

Based on an evolution of the date and
the very low live (s of PEB; our tigned, this
site does not pose on unaccostock rish to
workers as any juture usidential population.
This dediction will be neview at the time of
the Meand of Charian.

DATE: 4/9/9-2 NAME: Dear J. Nygard

PAGES (DECISION) STATEMENT):

SIGNATURE:

PROCESS/WASTE WORKSHEET SITE ID <u>CPP-49</u>

Col 1 Processes Associated with this Site	Col 2 Waste Description & Handling Procedures	Col 3 Description & Location of any Artifacts/Structures/Disposal Areas Associated with this Waste or Process
PCB Transformer Yard	Oil release to concrete transformer pads.	Artifact: Concrete Pad Location: CPP-49 Description: Possible PCB contamination
	,	Artifact: Location: Description:
		Artifact Location Description
Process PCB Transformer yard	Oil release to concrete transformer pads.	Artifact: Soil Location: CPP-49 Description: Possible PCB contamination
·		Artifact Location Description
		Artifact : Location Description
Process		Artifact Location Description
		Artifact Location Description
		Artifact Location Description

CONTAMINANT WORKSHEET SITE ID CPP-49 PROCESS (Col 1) PCB Containing Transformers WASTE (Col 2) PCB's					
Col 4 What known/potential hazardous substances/constituents are associated with this waste or process?	Col 5 Potential sources associated with this hazardous material	Col 6 Known/estimated concentration of hazardous substances/ constituents*	Col 7 Risk based concentration mg/kg	Col 8 Qualitative risk assessment (Hi/Med/Lo)	Col 9 Overall reliability (Mi/Med/Lo)
PCBs	Transformer Oil	. ≤330 ppm			
PCBs	Contaminated Concrete	29 ppm	0.0625 ppm	Med	Hi
PCBs	Contaminated Soil	≤1 ppm	0.0625 ppm	Med	Hi
					,
·			·		

a. ND = not detected
DL = detection limit in ppm

	QUALITATIVE RISK A	ND RELIABILITY EVALUATION	TABLE
		QUALITATIVE RISK	
	Low	Medium	High
HIGHLY UN- RELIABLE	screening data	TRACK II	screening data
HIGHLY RELIABLE	No Action Required	RI/FS	Interim Action
reliability	LOW concentration resulting in risk < 10°4	NEDIUM in co	MIGH ncentration resulting in risk > 10 ⁻⁴
	,	qualitative risk	

if there exist sufficient data to identify an appropriate remedy

Question 1. What are the waste generation process locations and dates of operation associated with this site?
Block 1 Answer:
This site was used as a transformer yard since 1951. The site is still correctly in use. The main transformer pad, 24 ft x 17.5 ft, contained oil stains containing PCBs.
Block 2 How reliable is/are the information source/s? X_HighMedLOW (check one) EXPLAIN THE REASONING BEHIND THIS EVALUATION.
As built drawings are dated 1951 and oil stains are documented in Occurrence Report # WINCO-91048.
Has this INFORMATION been confirmed? X_YesNo (check one) IF SO, DESCRIBE THE CONFIRMATION.
Sampling of concrete and soil in 1988 shows PCB contaminated concrete and clean soil (≤ 1 ppm).
Block 4 SOURCES OF INFORMATION (check appropriate box/es & source number from reference list)
No available information [] Anecdotal Historical process data [] Current process data [] Areal photographs [] Engineering/site drawings [] Unusual Occurrence Report [x] Summary documents [] Facility SOPS [] OTHER [x] Analytical data [] Bocumentation about data [] Q.A. data [] Safety analysis report [] Initial assessment [] Well data [] Construction data []

Question 2. What a associ	are the disposal process locations and dates of operation iated with this site?	
Block 1 Answer:		
	The oil staining on the main concrete transformer pad was reported as an occurrence on 3/91. The staining had been observed prior to this time but was not reported. Sampling the concrete and soil was completed in 1988. It is apparent that the concrete staining was due to PCB contaminated transformer oil from periodic maintenance or leaking of the transformer.	of ;
	•	
	is/are the information source/s? X_HighMedLow (check one) ASONING BEHIND THIS EVALUATION.	
Occurrence Report report from 1988 :	# WINCO-91048 reports a leaking transformer and the sampling shows PCB contaminated concrete.	Ţ
	ORMATION been confirmed? X Yes No (check one) E THE CONFIRMATION.	
	# WINCO-91048 reports a leaking transformer and the sampling shows PCB contaminated concrete.	J
	F INFORMATION (check appropriate box/es & source number from reference list)
No available informat Anecdotal Historical process da Current process data Areal photographs Engineering/site draw Unusual Occurrence Re Summary documents Facility SOPs OTHER	[] Documentation about data []	The second secon

Question 3. Is there empirical, circumstantial If so, what is it?	, or other evidence of migration?
Block 1 Answer:	
vard. Oil staining to the o	f migration from the transformer concrete appeared to be limited. aminated concrete and clean soil
	<u>-</u>
Book 2 How reliable is/are the information source EXPLAIN THE REASONING BEHIND THIS EVAL	
Occurrence Report #WINCO-91048 verifies limit(1988) shows limited impact to soils (≤ 1 ppm)	ed leakage and the sampling report
Has this INFORMATION been confirmed? X IF SO, DESCRIBE THE CONFIRMATION.	YesNo (check one)
Occurrence Report #WINCO-91048 and September	1988 Sampling Report.
Block 4 SOURCES OF INFORMATION (check appropria	te box/es & source number from reference list)
No available information [] Anecdotal [] Historical process data [] Current process data [] Areal photographs [] Engineering/site drawings [] Unusual Occurrence Report [] Summary documents [] Facility SOPs [] OTHER [X]	Analytical data [] Documentation about data [] Disposal data [] Q.A. data [] Safety analysis report [] D&D report [] Initial assessment [] Well data []

The PCB containing transformer (XRF-PHE-22) on the main pad will be removed during 1992. The PCB contaminated concrete pad was encapsulated during 1991 with a new pad and the new pad was sealed to prevent moisture migration to the existing pad and soil. One additional PCB containing transformer (HCE-323) is being removed from the yard during 1992. **Book 2** How reliable is/are the information source/s? *X_HighMedLOW (check one) **Explain The REASONING BEHIND THIS EVALUATION.**
will be removed during 1992. The PCB contaminated concrete pad was encapsulated during 1991 with a new pad and the new pad was sealed to prevent moisture migration to the existing pad and soil. One additional PCB containing transformer (HCE-323) is being removed from the yard during 1992. Block 2 How reliable is/are the information source/s? X_HighMedLOW (check one)
Occurrence Report #WINCO-91048 and interview with Plant Projects.
Has this INFORMATION been confirmed? X YesNo (check one) If so, describe the confirmation. Occurrence Report #WINCO-91048 and interview with Plant Projects.
Block 4 SOURCES OF INFORMATION (check appropriate box/es & source number from reference list) No available information []

Question	5.	Does site operating or disposal historical information allow
·		estimation of the pattern of potential contamination? If the
		pattern is expected to be a scattering of hot spots, what is the
		expected minimum size of a significant hot spot?

Block 1 Answer:

The pattern of contamination on the concrete pad is shown on Figure 3 of the September, 1988 Sampling Report. Soil contamination concentrations were ≤1 ppm. It is important to note that the field sampling methodology did not always adhere to the Quality Assurance Project Plan (QAPP) for the project. Differences included: no available documentation that Enviro Search completed independent validation of the sampling results, deep samples dictated by the QAPP, collection of discrete samples rather than composite samples, etc.

How reliable is/are the information source EXPLAIN THE REASONING BEHIND THIS EVALUATION	· ·
September, 1988 Sampling Report.	
$_{\text{Boo}3}$ Has this INFORMATION been confirmed? \underline{X} Yes	SNO (check one)
September, 1988 Sampling Report.	
Anecdotal [] Do Historical process data [] Di Current process data [] Q. Areal photographs [] Sa Engineering/site drawings [] D& Unusual Occurrence Report [] In Summary documents [] We	a box/es & source number from reference list) malytical data []

Question 6. Estimate the length, width, and depth of the contaminated region. What is the known or estimated volume of the source? If this is an estimated volume, explain carefully how the estimate was derived.			
Block 1 Answer:			
Two areas of concrete staining were apparent on the concrete transformer pad; one at the northeast corner and one at the southwest corner. The total area of affected concrete was less than 50 square feet. The concrete has been encapsulated and sealed against release to the environment.			
How reliable is/are the information source/s? X_HighMedLOW (check one) EXPLAIN THE REASONING BEHIND THIS EVALUATION.			
September, 1988 Sampling Plan (Figure 3).			
Has this INFORMATION been confirmed? X_YesNo (check one) IF SO, DESCRIBE THE CONFIRMATION.			
September, 1988 Sampling Plan (Figure 3).			
Block 4 SOURCES OF INFORMATION (check appropriate box/es & source number from reference list)			
No available information [] Anecdotal [] Historical process data [] Current process data [] Areal photographs [] Engineering/site drawings [] Unusual Occurrence Report [] Summary documents [] Facility SOPs [] OTHER [X] Analytical data [] Disposal data [] G.A. data [] Safety analysis report [] Initial assessment [] Well data [] Construction data []			

Question 7. What is the known or estimated quantity of hazardous substance/constituent at this source? If the quantity is an estimate, explain carefully how the estimate was derived.

Block 1 Answer:

Estimate of PCB weight based on stained area of 50 sq.ft., 1'' penetration and concrete density of 130 lbs/ft³.

50 sq. ft
$$\times \left(\frac{1}{12}\right)$$
 ft $\times \frac{130 \ lbs}{ft^3} \times \frac{454 \ gm}{1b} \times \frac{29.1 \ parts \ PCB}{10^6 \ parts \ concrete}$

= 7.15 gm PCBs

How reliable is/are the information source/s? X High __Med __Low (check one) EXPLAIN THE REASONING BEHIND THIS EVALUATION.

Estimate based on concrete staining and concentration from Sampling Report.

Has this INFORMATION been confirmed? Yes X No (check one) IF SO, DESCRIBE THE CONFIRMATION.

Estimate based on concrete staining and concentration from Sampling Report.

Block 4 SOURCES OF INFORMATION (check appropriate box/es & source number from refere	ence li	list
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orner tx1 s	Historical process data Current process data Areal_photographs Engineering/site drawings Unusual Occurrence Report Summary documents Facility SOPs) ; ; ; ; ; ;	2
-------------	--	---------------------------------	---

Analytical data	ε	1	
Documentation about data	[]	
Disposal data	t	1	
Q.A. data	[]	
Safety analysis report	ľ	1	
D&D report	ξ	1	
Initial assessment	Ľ	1	
Well data	[1	
Construction data	C	1	

Question 8. Is there evidence that this hazardous substance/constituent is present at the source as it exists today? If so, describe the evidence.					
concrete is still present encapsulated with a new s	ampling report, PCB contaminated t at the site. The concrete has been concrete pad which is sealed. transformers (two) will be removed				
How reliable is/are the information s EXPLAIN THE REASONING BEHIND THIS E September 1988 Report and Occurrence Report	VALUATION.				
Has this INFORMATION been confirmed? X_YesNo (check one) IF SO, DESCRIBE THE CONFIRMATION. September 1988 Report and Occurrence Report.					
No available information [] Analytical data [] Documentation about data [] Disposal data []					

REFERENCES

- 1. Off-Normal Occurrence Report Number WINCO-91048.
- 2. Final Report, :PCB Soil Sampling in the Transformer Yard (CPP-705), Idaho Chemical Processing Plant", Westinghouse Idaho Nuclear Company, Inc., July 1988.
- 3. Quality Assurance Sampling Plan, September 1988.
- 4. EG&G Risk Evaluation, January 1992.

REFERENCE 1

OCCURRENCE REPORT

IDAHO CHEMICAL PROCESSING PLANT Westinghouse Idaho Nuclear Company, Inc.

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	-

lame:	J. M. White	Title: Plant Shift Manager (facility Manager)	Phone No.:3-583-3100
lame:	G. K. Oswald	Title: Plant Services Manage	per Phone No. :9-583-3268
		(Responsible Manager)	
lame:	K. M. Coburn	Title: Utilities Manager (Originator)	Phone No.:208)525-330
1.	Occurrence Report Nu	mber: WINCO-91048	
2.	Status: [] Notification [X] 10 - day [] Final	3-19-91 [3-22-91 [Courrence Category: Emergency Unusual Occurrence X] Off-Normal
4.	Responsible Departme	nt(s): Production	
	DOE Program Office:	DP-14	
5.	Facility or Location System: Electrical Ut Equipment/ID: Transf	ilities	ant Area: [CPP
7.	Date of Occurrence ((Discovered): <u>3-7-91</u>	Time: 1430
8.	Date of Occurrence O	Categorized: 3-19-91	Time: <u>1240</u>
9.	Date of DOE Program	Notification: 3-19-91/DOE-I	D) Time: 1240
10.	Date of Other Notifi	ication: <u>3-19-91</u> State of Idaho INEL Oversigh	Time: <u>0900</u>
11.	Subject or Title of	Occurrence:	c Frourain
	PCB Contaminated Oil Le	ak to the Environment	
12.	Description of Occu	rrence:	
	that contain PCBs. Duri had leaked from XFR-PHE-	personnel perform periodic insp ng one of these inspections, on 22. The amount of leak is est ctually went to soil. PCB cond	n 3-7-91, a small amount of imated to be IO milliliters,
	(NOTE: The fact that th occurrence was not reali	e incident qualified to be repozed until 3-19-91.)	orted as an offnormal
		s of Facility at Time of	Occurrence:

14. Immediate Actions Taken and Results:

1) The oil and the contaminated soil were cleaned up and disposed of.

	Occurrence Report Number: WINCO-91048
	Report Date: 3-22-91
.5.	Cause: Direct Cause: (mark only one)
	Design [χ] Material [] Personnel [] Procedure [] Other [] Explain:
	Contributing Cause(s):
	<pre>Design [] Material [] Personnel [] Procedure [] Other [] Explain:</pre>
	Root Cause:
	Design [] Material [] Personnel [] Procedure [] Management [] Training [] Explain:
16.	Description of Cause:
•	Direct Cause:
	The metal to metal seal failed around indicating gauge connections to the transformer tank, thus allowing transformer oil to slowly weep from connections.
	Contributing and root causes will be addressed in the final report, based on the results of the investigation.
	,
17.	Evaluation:
	The slow weeping of the transformer oil from around the indicating gauge connection will not endanger the safe operation of the transformer. The transformer is located inside SWMU 49 which is fenced in. Personnel must intentionally enter SWMU 49 to come in close proximity with XFR-PHE-22. Therefore, PCB contamination risk to personnel is minimal.

If Yes, Before Further Operation: Yes [] No [X]

If Yes, By Whom?

When?

-//	(uclear	Campan	y, lac
FCRH	COMIN	7037X	(2-91)

Occurrence	Report	Number:	WINCO-91048
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Report	Date:	3-22-	91

19.	Corrective Action	: Taken:	[X]	Recommended:	[]	To	Ве	Supplied:	[X]
	Taken:									

See Block 14 for corrective action 1.

To Be Supplied:

- 2) Work has been initiated to apply a sealant material around the area that had been leaking as a precaution. (No leakage has been observed in this area since initial cleaning.)
- 3) Project S299256 has scheduled removal of XFR-PHE-22 in July 1991.

Further corrective actions will be formulated on the results of the investigation and reported in final report.

20.	Impact on Environment, Safety and Health:
	Will be reported in final report
21.	Programmatic Impact:
	None
22.	Impact Upon Codes and Standards:
	None
23.	Final Evaluation and Lessons Learned:
	Will be reported in final report

24. Similar Occurrence	Report Numbers:	
None		
25. Signatures:		
Not required	(Name, Position)	Date:
SCAL REVIEW	Plant Services Manager (Name, Position)	Date: 3 /21/9/
tesponsible Hanager	(Name, Position)	
Mhlt for S. Georhart The roman, SRC Committee		Date: 3/72/91
Chairman, SRC Committe	(Name, Position)	
(M) Who	shift Mongaer	0ate: 3 27 91
acality Manager	(Name, Rosition)	1
(Signed by) C. R. Enos	Chief, CPP Branch (Name, Position)	Date: 3-25-91
DOE-ID Facility Representative	(Name, Position)	
		Date:

OOE-HQ Program Manager

(Name, Position)

Huclear	Compan	y, inc.
FORM WINCO		

Occurrence Report Number: WINCO-91048

Report Date: 3-22-91

cade + or

DOE FACILITY REPRESENTATIVES INPUT

DOE Facility Representative Input: 26.

- 1. Why was the state of Idaho notified before DOE?
- 2. Block #15 Do not leave contributing and root causes blank.
- 3. Block #17 A description of SWMU 49 should be included.
- 4. Action should be taken to ensure any leakage will be contained in a secondary containment until the transformer can be removed.
- 5. It is my understanding that this transformer has weeped PCB solution in the past. How long has this condition been known and what corrective action has been taken in the past?

COMMENTS TO BE INCORPORATED INTO THE FINAL REPORT BEFORE IT IS ISSUED.